

Eugenics is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage.—SIR FRANCIS GALTON (1904)

The Eugenics Review

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NOTES OF THE QUARTER

THE ROYAL SOCIETY

THE ROYAL SOCIETY was founded in 1660: its tercentenary will be celebrated by a series of events due to take place between July 18th and 26th, 1960. On July 19th there will be an opening ceremony at the Royal Albert Hall when formal congratulatory messages will be presented by selected representatives of other bodies.

Fellows and Members of the Eugenics Society will be glad to know that the following message has been sent to the Royal Society on their behalf:

TERCENTENARY OF THE ROYAL SOCIETY

The happy and most signal occasion of the Tercentenary of the Royal Society affords to young Societies an opportunity to congratulate the Royal Society and is an encouragement to effort on their own behalf. The long life, the great influence and the invariable helpfulness of the Royal Society have won a public esteem unmatched anywhere in the world.

From Sir Francis Galton, its founder fifty years ago, to Sir Charles Darwin and Sir Julian Huxley, its penultimate and present presidents, the Eugenics Society has been proud to include among its members many Fellows of the Royal Society interested in the biological future of mankind.

The President and Council, Fellows and Members of the Eugenics Society, send therefore to the Royal Society their congratulations upon its three hundred years of achievement and their best wishes for its continued leadership.
13th April, 1960

THE COLD SPRING HARBOR SYMPOSIUM, 1959

Dr. P. M. Sheppard writes: The twenty-fourth symposium on Quantitative Biology, *Genetics and Twentieth Century Darwinism*,* was held at the laboratory of the Long Island Biological Association from June 3rd to June 10th, 1959. There can be few more delightful settings for a biological symposium than Cold Spring Harbor in summer. Not only are the surroundings beautiful but the local woods have an abundance of interesting plants, for example the introduced Campion *Melandrium* which can be found growing "wild" in the grounds of the laboratory. Local studies on this plant have shown that its Y chromosome carries male determining genes unlike the situation found in *Drosophila*. This discovery is relevant to human genetics because it now appears that in Man the Y chromosome also carries such genes. The same is apparently true of the mouse and probably the cat since rare tortoiseshell male cats are known which are probably XXY, because tortoiseshell is normally the heterozygote for the sex linked gene producing yellow and therefore only found in individuals with two X chromosomes. Moreover such male cats are usually sterile, as are those with the XXY Klinefelter syndrome in man.

During the symposium Professor G. L. Stebbins took a party round the woods and explained the local flora particularly the very interesting swarm of hybrid oaks which is to be found there. The weather could not have been more perfect than it was during the meeting

* *Cold Spring Harbor Symposia on Quantitative Biology*, Volume 24. Cold Spring Harbor, N.Y., 1959. The Biological Laboratory. Pp. xv + 321. Price \$8.00.

and because the programme was not overcrowded those who wished to do so had time to bathe off the harbor bar. If the tide was high one found oneself swimming in the company of *Limulus*, the King Crab, which to-day is little different from its fossil relatives of about 150,000,000 years ago (approximately the period of the earliest known fossil mammals) and whose evolution can be traced for some 500,000,000 years. It was not inappropriate for the members of a conference considering the mechanisms and rates of evolution to find themselves in the company of such a creature.

One of the great benefits of a symposium such as that held annually at Cold Spring Harbor is that there are few papers (three to four a day in 1959), thus giving plenty of time for discussions with colleagues from other laboratories and other lands. It is a great pity that organizations who give money for scientists to attend meetings so frequently insist that those receiving aid must give a paper. Printed papers are better than lectures and the benefit from Symposia lies wholly in the informal discussion.

On the first evening of the meeting Professor Mayr opened the proceedings with a paper appropriately entitled "Where are we?" Thereafter each day was devoted to a different aspect of evolution, the subjects discussed being: Theory of the Gene and Raw Materials of Evolution; Natural Selection and Race Formation I; Natural Selection and Race Formation II; Ecological Systems and Social Organisations; Isolating Mechanisms and Speciation, Fossil Record and Rates of Evolution; and finally, Trends of Evolution. On the last day Professor G. L. Stebbins summarized the work of the Symposium in a masterly manner entitling his contribution: "The Synthetic Approach to Problems of Organic Evolution."

I will not try to summarize what was said since I could not hope to equal Stebbins' contribution but I will point out a few of the papers which are of particular interest to the study of human genetics. These are by A. E. Mourant, N. A. Barnicot, C. S. Coon, B. Kurten, G. Heberer and E. Hunt. Mourant discussed the action of Natural Selection on the blood group Polymorphisms of Man, particularly with reference to disease susceptibility and the usefulness of

blood group determinations in anthropology. Barnicot considered evidence for differences between "races" with respect to adaptation to climatic stress. He concluded that there was as yet insufficient evidence to assess the magnitude of any differences in adaptation or the role played by such obvious characters as body size, body form, skin colour or sweating rate. Coon talked about race and ecology in man and Kurten discussed differences in the rates of change found in fossil mammals. Among other things he concluded that in the change from *Pithecanthropus erectus erectus* (Java Man) to recent *Homo sapiens* there had been a rapid change in cranial capacity initially but that this rate of change had subsequently become much slower. Heberer gave a paper on the evolution of man as revealed by the fossil record. Hunt enumerated some of the changes in the morphology of the head which characterized the later trends in the evolution of man and concluded that many of them may not indicate genetic change at all but be directly due to the effects on growth of changes in the environment associated with civilization. The various papers on Natural Selection in Man suggests that there is now little selection acting on the morphological characters which distinguish the various ethnic groups and that most of the selection is for characters adjusting us to life in urban conditions. Thus selection is favouring in the main constitutions which make us resistant to the mental and physical diseases associated with "civilization."

One notable feature of the symposium was that the discussions after papers dealing with Man tended to be more heated than those after the other papers, suggesting to me that it is in the field of human genetics and evolution that we particularly require new data. It is to be regretted that A. C. Hardy's hypothesis of a semi-aquatic stage in man's evolution had not been published at the time of the symposium since the considered opinions of the experts taking part would have been stimulating.

The papers given at the symposium are printed in Volume 24 of the Cold Spring Harbor Symposia on Quantitative Biology. The papers are in full but the records of the discussion consist only of those parts submitted in writing

at the end of each day. Moreover, even these have been edited without any consultation with the contributor in question. Consequently the reader must always remember that the tone of the discussion does not necessarily accurately reflect the way the paper was received at the meeting. For example, although part of Lamotte's conclusion was strongly criticized at the time not one word of this appears in the discussion.

This symposium volume should be in all libraries which cover evolutionary subjects and will be valuable to population geneticists, systematists and paleontologists interested in evolution. The book also has much to offer to the non-specialist even though parts of some papers require rather detailed knowledge for them to be fully appreciated.

THE PHENOMENON OF MAN

THE EUGENICS EDUCATION SOCIETY has founded just over fifty years ago. Though the name was changed in 1928 our president, Sir Julian Huxley, has taken a prominent part in the development, decade by decade, of our further education in eugenic thinking. He continues that process in his Preface to Pierre Teilhard de Chardin's *The Phenomenon of Man*,* a remarkable exposition published at the end of last year. We quote paragraphs from Sir Julian's Preface:

It was my privilege to have been a friend and correspondent of Père Teilhard for nearly ten years; and it is my privilege now to introduce this, his most notable work, to English-speaking readers.

His influence on the world's thinking is bound to be important. Through his combination of wide scientific knowledge with deep religious feeling and a rigorous sense of values, he has forced theologians to view their ideas in the new perspective of evolution, and scientists to see the spiritual implications of their knowledge. He has both clarified and unified our vision of reality. In the light of that new comprehension, it is no longer possible to maintain that science and religion must operate in thought-tight compartments or concern separate sectors of life; they are both relevant to the whole of human existence. The religiously minded can no longer turn their

backs upon the natural world, or seek escape from its imperfections in a supernatural world; nor can the materialistically-minded deny importance to spiritual experience and religious feeling. Like him, we must face the phenomena. If we face them resolutely, and avail ourselves of the help which his intellectual and spiritual travail has provided, we shall find a more assured basis for our thought and a more certain direction for our evolutionary advance. But, like him, we must not take refuge in abstractions or generalities. He always took account of the specific realities of man's present situation, though set against the more general realities of long-term evolution; and he always endeavoured to think concretely, in terms of actual patterns of organization—their development, their mode of operation and their effects.

It also produces more varied, more intense and more highly organized mental activity or awareness. During evolution, awareness (or if you prefer, the mental properties of living matter) becomes increasingly important to organisms, until in mankind it becomes the most important characteristic of life, and gives the human type its dominant position.

After this critical point has been passed, evolution takes on a new character: it becomes primarily a psychosocial process, based on the cumulative transmission of experience and its results, and working through an organized system of awareness, a combined operation of knowing, feeling and willing. In man, at least during the historical and proto-historical periods, evolution has been characterized more by cultural than by genetic or biological change.

... Père Teilhard enables us to see which possibilities are in the long run desirable. What is more, he has helped to define the conditions of advance, the conditions which will permit an increase of fulfilment and prevent an increase of frustration. The conditions of advance are these: global unity of mankind's noetic organization or system of awareness, but a high degree of variety within that unity; love, with goodwill and full co-operation; personal integration and internal harmony; and increasing knowledge.

Knowledge is basic. It is knowledge which enables us to understand the world and ourselves, and to exercise some control or guidance. It sets us in a fruitful and significant relation with the enduring processes of the universe. And, by revealing the possibilities of fulfilment that are still open, it provides an overriding incentive.

We, mankind, contain the possibilities of the earth's immense future, and can realize more and more of them on condition that we increase our knowledge and our love. That, it seems to me, is the distillation of *The Phenomenon of Man*.

*London, 1959. Collins. Pp. 320. Price 25s. It is hoped that a review of this book will appear in our October Number.

IDENTICAL TWINS

THE REPLICATION OF an individual which occurs when twins are identical—sprung from the cleavage of a single fertilized ovum—has long excited attention. Identical twins, on average, occur once in every four sets of twins born, so that an identical twin is likely to be present in any population sample of 160 to 200 people.

The use of separated identical twins, for purposes of assessing the relative powers of the genetic and environmental influences acting upon the individual throughout life, is widely understood by biologists. There have been many special studies of human identical twins though, of course, they form less convenient research material than, for example, identical twins in cattle where the individuals can be separated at an early age for deliberately separate rearing under differing environmental conditions. The more such studies are pursued, the more evident and remarkable are the minutiae which are demonstrably of genetic origin.

When identical twins appear voluntarily under the blazing lights of the television camera, or when they appear under less happy circumstances in the police court, they invariably produce a very special public interest. But the public has yet far to go in properly appreciating the genetic or basic significance of the phenomena which they so observe.

THE CHURCHES AND BIRTH CONTROL

RECOGNITION, REALIZATION and reinterpretation, followed by policy and action, are phases in the growth of many social changes. So it is of course with matters demographic, contraceptive, and even doctrinal in the world now in this mid-century. Three coincident press cuttings typify the present progress.

The Indian Ambassador in the United States (according to the *Daily Worker*) at a public conference has urged the U.S. Government to help his country to produce a cheap oral contraceptive in addition to other more usual aid: the Indian Government's desire was deliberately to halve the birth rate in the interests of the whole country.

The Dutch Reformed Church (as quoted by *The Times*) "accepts contraception and makes no

distinction between natural and mechanical methods" it was stated at the recent conference at The Hague of the International Planned Parenthood Federation. The report on *The Family in Contemporary Society*, issued by the Lambeth Conference in 1958, was at the centre of advance on a wide front.

Coincidentally the *Guardian* starts a leading article "Two explosive forces threaten to overwhelm humanity—hydrogen bombs and the expansion of the world's population" "... there is no prospect of checking it except by some means of planned family limitation, which has always been opposed by the Roman Catholic Church (and hitherto by many other Churches, too) on religious grounds. For years the World Health Organisation has been inhibited in its handling of this problem by the religious issue; the World Health Assembly's conference at Geneva recently "ran into the same obstacle." Thus does the *Guardian* provide a preamble to its commendation of Dr. Richard M. Fagley's book *The Population Explosion and Christian Responsibility*.^{*} This editorial ends thus "... "These changes ... mean that devout Christians can now work with a good conscience to save mankind from the potentially disastrous consequences of its own fecundity by means towards which, a generation ago, the only formulated Christian ideas were implacably hostile."

SIR JOHN MEGAW

THE LATE Major-General Sir John Megaw, K.C.I.E., M.B., B.Ch., D.Sc., I.M.S., was Director-General of the Indian Medical Service from 1930 to 1933. He died in 1958 after long years of service to India since the day in 1900 when he took the first place in the entry examination for the Indian Medical Service. He was pre-eminently a pioneer in the recognition of India's population problem. He was endeavouring by every means to bring the matter to public attention two and three decades before at last the pressure of facts convinced government and leading people alike of its reality. He stressed throughout that increases of agricultural production could provide no adequate solution without simultaneous reduction in the rate of increase of the people to be fed.

^{*} Oxford University Press. 28s.

It can now be recorded that Sir John's papers on this topic have posthumously been edited by his old friend and colleague Major-General Sir Leonard Rogers, K.C.S.I., C.I.E., F.R.S., who worked upon documents gathered together by Sir John himself up to 1946. These papers have come to have a prophetic significance, and to be of real importance to the student of India's demographic history and the slow shaping of her population policy.

The papers are now to be available, in the form of microfilm copies of the typescript, in certain libraries and departments in India, in the United Kingdom and elsewhere. This distribution has been made possible by Sir John's nephew, Mr. John Megaw, Q.C. A copy of the typescript is held in the *Society's* library and questions as to its availability elsewhere can be answered by correspondence.

OBITUARY

LADY CHAMBERS

WITH THE DEATH of Lady Chambers on April 20th the Eugenics Society lost one of the remaining links with its earliest days, for she was among the handful of people who were active in the formation of the then Eugenics Education Society and, with Sir Theodore Chambers, was for many years closely associated with the eugenic movement.

In its early days the *Society* was run by a team of voluntary workers, under the enthusiastic guidance of Mrs. Gotto (later Mrs. Neville-Rolfe), with only one paid typist. In 1922 Sir Robert Armstrong-Jones recorded the *Society's* great obligation to Lady Chambers, whose efforts had prevented the collapse of its work; very warm and grateful thanks were expressed for her long and very hard term of office work. Before this date she had served as a member of the Council for some years and was Honorary Secretary of the Educational Committee.

On the resignation of Mrs. Neville-Rolfe in 1920 Lady Chambers and Professor R. A. Fisher (now Sir Ronald Fisher) were appointed joint Honorary Secretaries of the *Society*, which appointment she held until she went abroad in 1926. It was at this time that the re-naming of the *Society* was first mooted, as it was believed

that the object of the *Society* being primarily educational was so well established as to make the word "education" in its title redundant.

Lady Chambers remained a member of the Council for some years and was elected a Vice-President in 1931; the expiration of this term of office brought to an end her period of very close association with the work of the *Society*, but in 1950 she wrote a memorandum on its foundation and activities up to 1926. Her notes may well be a valuable basis for any future study of the early history of the Eugenics Society.

PROFESSOR A. M. KENNEDY,
M.D., F.R.C.P., M.R.C.S.

IT IS WITH DEEP regret that we record the sudden death, on June 11th, of Professor Alexander Kennedy, a member of the Council of the Eugenics Society. An appreciation will appear in our October number.

OUR CONTRIBUTORS

Charles B. Goodhart, M.A., Ph.D.

Dr. Goodhart is a Fellow of Gonville and Caius College and Assistant Curator of Invertebrates in the University Museum of Zoology at Cambridge. His research has been concerned principally with ecological and evolutionary studies in snails and other animals, but he is interested also in applying ideas derived from this sort of work to human evolutionary problems, and he has been a Fellow of the Eugenics Society since 1956. Dr. Goodhart is married and has four children.

Robert H. S. Robertson, M.A., F.G.S.

Anthropometric charts in Galtonian style have been made of Mr. Robertson's maternal grandparents and uncle, his parents and his sister. His cephalic index was first measured when he was three days old, and, luckily, at gradually increasing intervals since he hated having the calipers dug into his skull. He is a mineralogist and consultant in raw material development, and son of Sir Robert Robertson, the chemist. He and his friend, A. G. Clement, have been concerned for sixteen years with the effect of emigration on the output of scientists from Scotland. They have shown that a subject fraught with the dangers of emotional

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assessment can be usefully and objectively studied by statistical methods. This is evident in their lecture to the Eugenics Society and will be set forth more fully in their forthcoming book, *Scotland's Scientific Heritage*.

Eliot Slater, M.D., F.R.C.P., D.P.M.

Dr. Eliot Slater was born in London and educated at the Oxford Preparatory School, Leighton Park, St. John's College, Cambridge, St. George's Hospital, the Maudsley Hospital, and the Research Institute for Psychiatry in Munich. He learned psychobiology under Mapother, genetics under Timofeeff-Ressovsky and its application in psychiatry under Bruno

Schulz. Since then his interests have been in clinical psychiatry and in the application of genetical methods to problems of aetiology. He is responsible for a number of papers in psychiatric journals, for a monograph on psychiatric twins in the M.R.C. Special Report Series, and for part-authorship of a manual of physical treatment in psychiatry and a clinical textbook.

He is at present part-time Director of the Psychiatric Genetics Research Unit of the Medical Research Council at the Maudsley Hospital, and Physician in Psychological Medicine at the National Hospital, Queen Square.

